IN THE CLAIMS:

1. A screening method for identifying a compound that inhibits growth of pathogenic microbes having a two-component system of DevR-DevS and/or DevR-Rv2027c and its homologues, said method comprising the following steps:

a) autophosphorylating DevS, and Rv2027c proteins and their single domain derivatives including mutant variant proteins, and thereafter, phosphotransfering to DevR and its derivatives in SDS-PAGE or High-throughput format in the presence of a test compound, and

b) determining the potential of the test compound to inhibit growth of pathogenic microbes, wherein the potential of the test compound is inversely proportional to (i) the degree of autophosphorylation of DevS and Rv2027c, (ii) the degree of phosphotransfer-based dephosphorylation of DevR and its single domain derivative, and (iii) the degree of dephosphorylation of phosphorylated species of DevS and Rv2027c and their single domain derivatives.

2. The method as claimed in claim 1, wherein the DevS derivatives are selected from the group consisting of $DevS_{201}$, $DevS_{578}$, $DevS_{201}$-H395Q, $DevS_{201}$-H397Q, $DevS_{201}$-H397A, and $DevS_{201}$-N503D.

3. The method as claimed in claim 1, wherein the Rv2027c derivatives are selected from the group consisting of $Rv2027_{194}$, and $Rv2027_{194}$-H392Q.

4. The method as claimed in claim 1, wherein the DevR derivative is $DevRN_{145}$ or the mutant protein is selected from the group consisting of DevR-D8N, DevR-D9N, DevR-D54V, DevR-D54N and DevR-K104E .

5. The method of claim 1, wherein the DevR, DevS, Rv2027, their single domain derivatives including mutant variant proteins are overexpressed in *E. coli* .

6. The method of claim 1, wherein the test compound shows an activity selected from a group consisting of antibiotic activity, antibacterial activity, anti-microbial activity and anti-tubercular activity.

7. The method of claim 1, wherein said method identifies anti-tuberculosis and anti-mycobacterial compounds or compounds that may be used to treat disease conditions caused by bacteria such as pneumonia, pertussis, listeriosis, enterobacterial diseases, and cholera.

8. A method of treating disease conditions caused by pathogenic microbes having two-component system of DevR-DevS and/or DevR-2027c or homologues, said method comprising administering a pharmaceutically effective amount of a compound that inhibits the phosphorylation reaction of DevR, DevS, and Rv2027c and their single domain derivatives including mutant variant proteins, to a subject in need thereof.

9. The method of claim 8 wherein the compound is administered with a pharmaceutically acceptable additive.

10. The method of claimed in claim 8, wherein the compounds are selected from the group consisting of Ethidium Bromide (EtBr), Bromo Phenol Blue (BPB), 2-mercapto benzimidazole (2-MBI) and their derivatives.

11. The method of claim 10, wherein BPB shows 50% inhibition (IC_{50}) of DevS/Rv2027c activity at a concentration of between 1.3 and 2.0 mM.

12. The method of claim 10, wherein EtBr shows 50% inhibition (IC_{50}) of Rv2027c activity at a concentration of between 0.5 and 1.0 mM and 35% inhibition in the presence of 2.5 mM in case of DevS.

13. The method of claim 10, wherein the 2-MBI shows 50% inhibition (IC_{50}) of DevS/Rv2027c activity at a concentration of between 0.3 and 0.8mM.

14. The method of claim 9, wherein the additive is selected from the group consisting of magnesium stearate, cellulose, calcium carbonate, starch-gelatin paste, talc, carrier, excipient, and diluent.

15. The method of claim 8, wherein the compound is administered orally, by inhalation, or by implantation.

16. The method of claim 8, wherein the physical state of said compound is selected from a group constisting of capsule, tablet, syrup, concentrate, powder, granule, aerosol, and beads.

17. A composition useful in the control of disease conditions caused by pathogenic microbes having two-component system of DevR-DevS and/or DevR-2027c or homologues said composition comprising a drug selected from a group consisting of Ethidium Bromide (EtBr),

Bromo Phenol Blue (BPB), 2-mercapto benzimidazole (2-MBI), and 2-phenylbenzimidazole and active derivatives thereof, and a pharmaceutically acceptable additive.

18. The composition of claim 17, wherein the additive is selected from the group consisting of magnesium stearate, cellulose, calcium carbonate, starch-gelatin paste, talc, carrier, excipient, and diluent.

19. The composition of claim 17, wherein the ratio of the drug and pharmaceutically acceptable additive is between 1:10 to 10:1.

20. The composition of claim 17, wherein the compound is administered orally, by inhalation, or by implantation.

21. The composition of claim 17, wherein the physical state of said compound is selected from the group consisting of capasule, tablet, syrup, concentrate, powder, granule, aerosol, and beads.